Telecommunications and Information Technology in China

Market Opportunities for Small and Medium-sized Enterprises

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With 1.3 billion citizens, China is the most populous country in the world. It also has a booming economy that has brought stability to a region still recovering from financial turmoil. China had an increase in gross domestic product (GDP) of 8 percent in 2002 to $1.2 trillion. Exports and foreign investment continue to boost economic growth. The privatization and reform of state-owned enterprises, as well as China's WTO membership, are expected to attract more foreign investment and reduce unemployment, currently at 4 percent.

INFORMATION TECHNOLOGY

The IT industry remains a leading economic segment for China and should have a value-added output exceeding $76 billion in 2003. The Chinese government is very supportive of the development of the information industry; it addressed this development for the first time in its Tenth Five Year Plan (2001–2005). The Chinese government is establishing three new high-tech "belts" in the Zhujiang River Delta in southern China, the Yangtze River Delta in Jiangsu Province, and across Beijing to expand electronics production. By 2005, the Chinese government expects that the industry will account for more than 7 percent of GDP, of which telecommunications will represent 4.7 percent and electronic products the remaining 2.5 percent.

TELECOMMUNICATIONS

According to the Ministry of Information Industry (MII), China will have an additional 33 million fixed-phone and 52 million mobile-phone subscribers this year and record $198 billion in sales of information products. It will also continue to invest more than $25 billion in fixed assets in the telecommunications sector. China's economic development is generating an increase in demand for communication services and equipment. A rise in living standards has also made it possible for a growing number of Chinese citizens to afford telephones. Finally, technological advances have contributed to network expansion by making available better equipment at lower prices.

China has one of the most competitive telecommunications equipment markets, which along with the explosive growth of the country's telecommunications networks has drawn all of the major international equipment suppliers to establish joint venture manufacturing operations there since the 1980s. At the same time, the Chinese government has encouraged the development of domestic manufacturers, resulting in a wide range of tariffs and non-tariff barriers. Chinese manufacturers now compete more vigorously with foreign companies not only in the Chinese market, but also in third-country markets.

There is currently intense interest and speculation surrounding China's plans for third-generation (3G) wireless technologies, with three standards under evaluation by MII. The Chinese view WCDMA as a "European" standard, CDMA-2000 as an "American" one, and TD-SCDMA as "Chinese." MII has indicated that it will issue four 3G licenses to Chinese wireless providers and will allow each operator to choose its preferred standard. However, most observers believe that pressure will be exerted on at least one operator to go with the TD-SCDMA standard. The stakes will be very high—not only for operators, but for equipment vendors.

IT MARKET

China is one of the world's fastest-growing IT markets and has surpassed Australia to become the Asia-Pacific region's second-largest IT market after Japan. According to International Data Corporation (IDC), China's market for IT products and services reached $22 billion in 2002 and is expected to exceed $40.2 billion by 2006. In 2002, hardware accounted for 73 percent of the market, followed by packaged software (10 percent) and IT services (17 percent). The Chinese government's emphasis on expanding the use of information technologies in schools, public sector agencies, and businesses has led to increased spending on computer equipment and should continue to affect demand. Personal computers have been a major focus of China's IT hardware spending activity. In 2001, China ranked fourth in the world for its installed base of PCs, third in the world for its installed base in the government and education market segments, and sixth in the household segment.

IT hardware trade between the United States and China nearly tripled between 1998 and 2002. As in telecommunications equipment, U.S. computer exports to China have grown much more slowly than imports from that country, leading to a significant U.S. trade deficit with China in this product area. China's WTO membership will boost this bilateral trade, allowing U.S. and Chinese IT firms to take advantage of tariff reductions on certain IT hardware and to be subject to the same legal and regulatory requirements and benefits as domestic suppliers.

Although much smaller than the IT hardware sector, China's software market has been growing much more rapidly and should increase to more than $5 billion by 2006, according to IDC. The main growth factors will be the 2008 Olympic Games and China's WTO membership (and the changes it will progressively bring to the market). Most of the software purchases in China have been in the low-end applications (e.g., accounting and financial management software) market segment, which domestic suppliers dominate.

China's market for IT services is expected to reach $4.7 billion in 2003, representing an increase of nearly 25 percent over the previous year. In the next four years, China's IT services market is expected to reach $11.7 billion. Implementation services represent the largest proportion of the IT services market in China, followed by operations management services. While IT services represent a relatively small portion of the total IT market compared with hardware, this segment is expected to grow substantially as the notion of procuring IT services becomes more widely accepted in China.

GROWTH OF THE INTERNET

Use of the Internet has been expanding rapidly. The number of Internet users in China grew from only 15,000 in 1995 to 59 million (or 5 percent of China's population) in January 2003. Most of these users currently access the Internet through a dial-up connection. However, Strategy Analytics, a market research firm, predicts that nearly 37 million homes will have a broadband connection by 2008. The increasing availability of broadband and cheaper charges for Internet access will be key to the development of the Internet in China. One major barrier to the growth of Internet use could be the Chinese government's continuing regulation of content.

ELECTRONIC COMMERCE

With its extremely large population, China may have the greatest potential of all Asia-Pacific countries to experience exponential growth in electronic commerce. Among the reasons why Chinese businesses and consumers are not yet buying on-line are the use of credit payment systems is not widespread, on-line merchants are not yet fully trusted, the security of electronic payments cannot be guaranteed, and delivery systems are inefficient throughout most of the country. China has also yet to develop a legal, regulatory, or policy framework conducive to the rapid growth of e-commerce. Laws recognizing the validity of "e-contracting" tools and stressing

the importance of on-line security have been proposed, but not fully implemented.

Nevertheless, despite these challenges, the prospects for the expansion of e-commerce in China are good. While e-business in other countries has suffered due to the recent global economic downturn, some observers estimate that China's e-commerce sector (business-to-business and business-to-consumer) may grow from around $16 billion in 2002 to $99 billion in 2006. The Chinese government has taken action to encourage more businesses and consumers to go on-line by stepping up its national "informatization" campaign and has continued its efforts to construct an appropriate framework in which e-commerce can flourish.

MARKET OPPORTUNITIES

U.S. information and communications technology exporters may find substantial market opportunities in China, but they also will face tremendous challenges. While their products are generally well regarded in this country, U.S. firms must compete with offerings from European, Japanese, South Korean, Taiwanese, and Canadian companies, as well as those of Chinese manufacturers. As previously noted, local firms benefit from a variety of Chinese government policies that are designed to foster the development of an indigenous IT and communications industry. China's WTO membership has helped to reduce or eliminate many of the market access barriers to U.S. exporters, but significant hurdles still remain.

In the telecommunications area, the development of 3G wireless networks will offer opportunities not only for U.S. telecommunications equipment vendors, but also for companies supplying a wide range of associated software applications, including roaming, billing, and user applications packages. WTO accession has opened new opportunities for American telecommunications service providers to

invest in a Chinese market that had previously been closed to foreign participation. However, U.S. telecommunications firms should note that this market opening has been staged and that they should target value-added services first, because this sector will open the fastest and will have the highest investment limit.

According to IDC, China's increase in e-government spending of nearly 40 percent annually between 2001 and 2003 provides U.S. IT firms with the opportunity to introduce solutions that will help the national, provincial, and municipal governments offer on-line services to their citizens. These solutions include networking hardware and software, Chinese-language database software, Chinese-language content management tools, portal software, and network security solutions. Thanks to the market opening resulting from China's WTO membership, U.S. IT suppliers will have new business prospects in traditional industries, such as manufacturing and banking, that need to upgrade their systems to become competitive internationally. These industries will require solutions that will help them become more efficient in delivering products to customers and receiving inputs from their suppliers.

American IT suppliers should benefit from the $24 million investment that China's Ministry of Science and Technology is making to bridge the country's digital divide through the wide variety of programs that are a part of the "Go West" initiative. IT solutions companies will be needed to educate communities, local governments, and businesses in western China in various uses of information technologies, as well as to train citizens on how to use computers and the Internet. Because of the large rural economy in this region, U.S. software firms will find substantial demand for Chinese-language software aimed at the agricultural sector and packages that would help farmers distribute their products more efficiently throughout China.

China's hosting of the 2008 Beijing Olympics will present U.S. IT companies with enormous opportunities to sell their equipment, software, and services. The IT projects envisioned by the municipal government of Beijing will require a wide range of products, such as smart card technologies, broadband applications, database applications, e-commerce platforms, network security solutions, simulation software, games software related to Olympic sports, and voice recognition software.

Finally, in the area of e-commerce, China's business-to-business market should continue to offer U.S. IT firms the best prospects for exports. Demand for U.S. Web developers, Web-hosting service providers, and e-commerce consultants is particularly high. E-commerce products and services localized for Chinese users should enjoy the most success.

U.S. suppliers interested in pursuing opportunities in China's IT and communications markets should recognize the differences in business and cultural styles between the United States and China and develop an appropriate market entry strategy. Some form of local presence is essential. Options include using agents and distributors; partnering with large IT firms, systems integrators, or consultants; partnering with like-minded small and medium-sized Chinese enterprises with complementary skills or products; or setting up a local office staffed by local employees to do marketing and training and to provide ongoing support. Even though China is a very large market, it is essential that businesses understand consumer behavior in the provinces or regions they are targeting. ■

This is an excerpt of the newly released *ExportIT* report on China, which is available in PDF and plain text format at www.export.gov/infotech.